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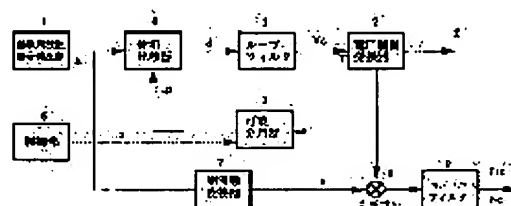
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(54) FREQUENCY SYNTHESIZER

(57)Abstract:

PURPOSE: To obtain a frequency synthesizer in which a phase locked loop circuit provides an output of two difference frequencies simultaneously.

CONSTITUTION: A phase locked loop is made up of a reference frequency signal generator 1, a phase comparator 4, a loop filter 5, a voltage controlled oscillator 2, a variable frequency divider 3 and a control section 6. A frequency converter 7 converts a frequency of an output fr of the reference frequency generator 1 by using a multiplier, or a frequency divider or the combination of them. A mixer 8 mixes an output (e) of the frequency converter 7 and an output (f) of the voltage controlled oscillator 2 and provides an output. A band-pass filter 9 extracts a signal component of a desired frequency band from the mixer output and provides an output.



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